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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,534	11/15/2001	Toshihiro Shima	TMI-108	7269

7590 02/06/2007

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EXAMINER	
KANG, ROBERT N	
ART UNIT	**PAPER NUMBER**
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/987,534	SHIMA, TOSHIHIRO	
	Examiner	Art Unit	
	Robert N. Kang	2625	RNK

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-20 and 33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-20 and 33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Examiner notes that the action mailed to applicant 7/14/2006 included the statement on page 1, "by modifying the dependencies of original claims 11-19, the applicant has significantly altered the scope of the invention, and therefore this rejection is made final, necessitated by applicant's amendment. However, due to Examiner error the "non-final" box was checked on the coversheet and count sheet- as a courtesy to the applicant this action will act as the final rejection.

Response to Arguments

2. Applicant's arguments filed 11/14/2006 have been fully considered but they are not persuasive.

3. Applicant has amended that the "prescribed location is obtained from a location information distribution server separate from the prescribed location." I.e., the printer acquires a location from the server, and then utilizes this location to download the driver/firmware. Adding additional intermediate steps in a packet switched network does not enhance patentability. The examiner has applied a new reference to render this discussion moot, however it can be easily illustrated that the applicant could easily add "a second location information distribution server" which obtains a "second location" which the printer uses to obtain the driver. *Where* the information comes from, once it has been established that it comes from a server, is irrelevant. However, as stated, the examiner has applied a new reference to render this requirement moot.

4. Applicant states that Barsness does not split installation files into "groups." Applicant asserts on page 11, "this form of management is substantially simpler to maintain than the teachings of Barnsness, and not taught or suggested by Barnsness." On the contrary, Barsness discloses arranging installation data in an order of precedence. Therefore, each installation file comprises its own group. Broadly defined, Barnsness classifies each piece of software into its own group.

5. Applicant has challenged the examiner's official notice that "printers with firmware upgrade routines embedded in the ROM were well known at the time of invention." Examiner has provided and applied Weyand (US 6,930,785), which teaches precisely this functionality in the *printer* claimed in claim 17.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 6, 7, and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase (US-PAT 5,580,177) in view of Barsness (US-PAT 5,960,206), further in view of Weyand (US 6,930,785).

Gase states in column 3, lines 2-7, "client processors 10, 12, and 14 are connected, via an intervening network, to a file server 16. A plurality of printers 18, 20, 22 are also connected to file server 16 are made available for use by any of client

processors 10, 12, 14.... Each client processor includes a printer utility program 24 which allows a user to select a printer connected to the file server as a default printer." Gase further explains in column 4, lines 13-24, "because memory 34 (on the file server 16) stores (i) the most updated versions of printer drivers in printer/driver library 38 (ii) printer administration utility 28 and (iii) printer utility 24, there always exists a repository where the most updated version of a program can be found. Thus, when a client processor elects to utilize a particular printer, it further determines whether its printer driver 26 is consistent with the most updated printer driver version in printer driver library 38. If not, the client processor causes its printer driver 26 to be revised or overwritten to reflect the most updated printer/driver version contained within printer driver library 38."

Therefore, the "network device," i.e., the client processor, "generates print data in accordance with information resources received from outside," i.e., generates a print job from a driver received from file server 16, and sends print data to a printer. Additionally, because the client connects to the server 16 when it requests a print job, as shown in step 70 of FIG. 3a, "print related information necessary for generating said print data is appropriately acquired from a prescribed location on the network at a prescribed time." Finally, because the driver is utilized to generate printer ready instructions or rasters, "print data is generated by using said acquired print related information, and sent to said printer."

Gase does not disclose "that said print related information is classified under at least two groups in accordance with the priority of acquisition thereof."

Barnsness discloses a method of estimating the time required to install an acquired set of software resources in column 9, lines 60-67, wherein "precedence relations ensure a certain ordering of events. For example, base operating system code changes must be installed before database base code can be installed because the latter option uses updated operating system code during its installation. Also, help files and example files for the database options must be installed after the base database option because they are installed into directories created during the installation of the database base code option." Thus each software component is given a specific priority for establishing precedence order. Furthermore, the installation order is analogous to the acquisition order, since the processor must execute these files in the order of precedence.

Gase and Barnsness are combinable because they both deal with software installation for a computing device.

Therefore, it would have been obvious at the time of invention to include in Gase a precedence ordering system for the acquisition and installation of various prioritized components as taught by Barnsness. In this combination, the driver is obviously the printer's "operating system code," and given the highest priority.

The motivation of this modification would be to install files in order of precedence as disclosed by Barnsness.

Neither Gase nor Barnsness expressly discloses "said prescribed location on the network is obtained from a location information distribution server separate from the prescribed location."

Weyand discloses a printer in claim 17 which has "an automatic remote firmware update mechanism adapted to sense a condition of a printer... and automatically retrieve firmware upgrade information for the remote device via the communications device... and to selectively and automatically install the firmware upgrade information into the firmware of the printer." He discloses in column 3, lines 50-56, the printer "automatically connect[s] to the outside source of information at point 30. At point 32, the automatic remote firmware update mechanism retrieves firmware upgrade information. If the information source is a website, retrieval includes establishing a connection with the web site, then downloading the image file."

Gase and Weyand are combinable because they both pertain to the automatic update of printer software from a remote location.

Therefore, it would have been obvious at the time of invention to one of normal skill in the art to include in Gase/Barsness a system of downloading firmware from a website as taught by Weyand. Therefore, the print server connects to an ISP, the ISP is given the request of a website name, which it then looks up from a DNS server to obtain an IP address. The IP address is the server address where firmware is downloaded. Any one of these elements (the print server, the ISP, the DNS) or ANY of the intermediate "hops" in the IP network may comprise a "location information distribution server." For the purposes of this rejection, the examiner defines it as the print server. Thus the location information distribution server provides the address of a prescribed location that is separate from the server.

The motivation of this modification would be to allow greater centralization of software updates from the manufacturer, reducing the need to install copies of drivers/firmware in the print server.

Thus it would have been obvious at the time to combine Gase, Barsness, and Weyand to obtain the invention as disclosed in claim 6.

With regards to claim 7, in the Gase/Barnsness/Weyand combination, the driver is obviously the printer's "operating system code," and given the highest priority. Thus, "print related information classified under a high-priority installation group comprises at least a ... printer driver program."

With regards to claim 11, Gase states in column 4, lines 38-44, "each modular I/O card 30 periodically 'advertises its availability by the transmission of messages to file server 16. Each message includes the name of the service, the type of the service, and the address of the available service. This data is accumulated within file server 16 and enables the generation of display presentation 60 at a client processor. Display screen presentation 50 appears on a client processor in response to a user's request to show available printers." The host queries the server in reference to available printers according to the installed device driver on the printer, and the server collects this address and status information from the multiple printer transmissions stored in a database and relays the information back to the host." Broadly defined, this qualifies as "upon acquiring print related information, access[ing] a server providing location

information of the print related information, and inquires for the location information on the network of the print related information."

Regarding claim 12, flowchart 3a diagrams the process flow in which Gase's method acquires "print related information." Upon user input to print a document, the print utility in networked clients 10-14 requests a print job in step 70. Upon selection of a printer in step 74, the file server compares printer driver in the client machine (analogous to the printer with included client machine) with the file server stored printer driver. Gase further describes this judgement in column 5, lines 13-22, stating, "because memory 34 stores (i) most updated versions of printer drivers in printer/driver library 38 (ii) printer administration utility 28 and (iii) printer utility 24, there always exists a repository where the most updated version of a program can be found. Thus, when a client processor elects to utilize a particular printer, it further determines whether its printer driver 26 is consistent with the most updated printer driver version in printer driver library 38. If not, the client processor causes its printer driver 26 to be revised or overwritten to reflect the most updated printer/driver version contained within printer driver library 38."

In regards to claim 13, the method as disclosed by Gase involves the "client processor caus[ing] its printer driver 26 to be revised or overwritten to reflect the most updated printer/driver version contained within printer driver library 38." "Overwriting" memory is an identical process to "replacing" memory. Therefore, if the client device

driver does not match the server's device driver, it is required to be replaced by the client processor.

In regards to claims 14/15 and 16/17, notice in Gase both the client and the server arrive that the decision to replace the client processor's driver together through the use of shared printer utility 24. Therefore, the Gase/Barnsness/Weyand combination meets the requirements of both claims 14 &15, "said network device makes said judgment by itself," and claims 16 & 17, "said judgment is made at a prescribed location on said network." Furthermore, in an additional, more literal, interpretation, the network device itself comprises "a prescribed location on said network."

With regards to claim 18, Gase's disclosed method keeps the installed device driver in the memory of the client processor for use until the client processor detects a difference between the client device driver and the updated server device driver. Thus, "information acquired from a prescribed location on said network is retained in said network device, and said print related information is held to be available until it is deleted."

Regarding claim 19, Gase's disclosed method keeps the installed device driver in the memory of the client processor for use until the client processor detects a difference between the client device driver and the updated server device driver. The overwriting

process is functionally identical to a delete process, since the "preceding print related information" is no longer stored in the said memory location after the overwriting.

Claims 20 and 33 are identical to the first 3 limitations of claim 6, which Gase/Barnsness/Weyand meets as detailed above. With regards to the limitation that "print related information which is acquired from a prescribed location on said network contains information concerning a prescribed location on said network to be accessed upon the next acquisition of said print related information," it is well known that essentially all network protocols encode each packet with a "sender's address." Thus, the driver sent from the server includes the IP address of the server, which will be accessed the next time a driver is requested. Furthermore, with the additional limitation that the location is sent **in addition to the senders address**, an HTTP packet, encapsulated in an IP packet, provides for two fields in the header, a "sender address" as well as a "last hop" address. The "sender address," the address of the remote website server, would comprise the "location on said network to be accessed upon the next acquisition," and the "last hop" address, the printer server, is the "sender address."

3. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase (US-PAT 5,580,177) in view of Barsness (US-PAT 5,960,206), further in view of Weyand (US 6,930,785), still further in view of Ishida (US-PAT 5,367,618).

Ishida discloses in column 5, lines 20-27, "if the font data, which is necessary for the receiving unit to output in appropriate form the graphic characters included in the

document data transmitted, is not installed in the receiving unit, a limited number of font data, corresponding to the graphic characters used in the document data is selected from the font data sets stored in ROM 2, and only the thus selected font data is transmitted by the transmitting unit to the receiving unit." Ishida further discloses in column 5 line 67 to column 6 line 22, "A step 205 starts a document data receiving procedure in which the data of the document from the transmitting unit is received by the receiving unit, and this document data receiving procedure is continued until the end of the procedure is detected in a step 206. When the document data receiving procedure is ended, a step 207 converts the received document data into data in recording format for each of the pages of the document data on the basis of the font data stored in the ROM 2 and the font data stored in the document disk unit 10, to form the recording data to be outputted onto recording paper for each of the pages of the document data received, and the step 207 stores the thus formed recording data in the page memory 8. A step 208 starts a printing procedure in which the recording data stored in the page memory 8 is printed out for each of the pages of the document, and this printing procedure is continued until the end of the printing procedure is detected in a step 209. When the printing procedure is ended in the step 209, a step 210 deletes the font data which is received from the transmitting unit and stored in the magnetic disk unit 10. In this manner, the document data receiving procedure is carried out by the document processing apparatus."

Gase and Ishida are combinable because they both deal with the reception of print resources. Ishida and Barnsess are combinable because they both deal with the installation of software resources.

Therefore, it would have been obvious at the time of invention to include the aforementioned Gase/Barsness/Weyand combination a modification for the installation of printer fonts as temporary data. Since additional printer fonts are obviously less important to the functionality of a printer than the printer driver (the default or base font is included in the ROM of the printer), the printer font has a lower priority than the driver. Thus claim 8, "print related information classified under a low-priority installation group comprises at least .. font data of the font which is included in said information resources, or the font renderer program," is met. Additionally, claim 9, "concerning a memory area for storing print related information, classifies and manages the storage area for each of said groups," is met, since the font is clearly stored in temporary, to be deleted after printing has completed, magnetic memory while the high priority driver is stored in a separate, long-term section of the client processor's memory. Finally, since Ishida's invention deletes the font data after printing, claim 10, "said network device, concerning print related information under a low-priority installation group, appropriately deletes the print related information at a prescribed time."

The motivation of this modification would be to allow the installation of fonts and other nonessential (non-operating system) data temporarily in the client device.

Thus it would have been obvious to combine Gase/Barsness/Weyand, and Ishida to obtain the invention of claims 9-10.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert N. Kang whose telephone number is 571-272-0593. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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